

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

MARTIN FLEISHER, AS TRUSTEE OF THE)	Civil Action No. 11-cv-8405 (CM)
MICHAEL MOSS IRREVOCABLE LIFE)	
INSURANCE TRUST II and JONATHAN)	
BERCK, AS TRUSTEE OF THE JOHN L.)	
LOEB, JR. INSURANCE TRUST, on behalf)	
of themselves and all others similarly situated,)	Confidential
)	
Plaintiffs,)	
)	
v.)	
)	
PHOENIX LIFE INSURANCE COMPANY,)	
)	
Defendant.)	
)	

DECLARATION OF ROBERT MILLS

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I. INTRODUCTION

1. I am an economist and Director at Micronomics, Inc., an economic research and consulting firm located in Los Angeles, California. Micronomics, Inc. is a subsidiary of ERS Group, a national economic and statistical consulting firm.

2. I have more than 16 years of economic research and consulting experience in areas including the valuation of intellectual property and other assets, industrial organization, and the calculation of economic damages. I have qualified as an expert on damages issues and have provided expert testimony before United States District Courts, state courts, and at arbitration. A biographical summary is attached as Exhibit 1.

3. Micronomics, Inc. is being compensated for my work on this matter at a rate of \$475 per hour. Work on this assignment has also been performed by members of my staff, acting under my direction.

4. I have been asked by counsel for Martin Fleisher and Jonathan Berck (“Plaintiffs”) to provide opinions concerning damages in this matter in response to statements made by Phoenix Life Insurance Company (“Phoenix”) in opposition to class certification that the damages in this case are “complex” and “will depend upon varying market prices” which “necessitates policy-by-policy valuations” and requires accounting for “the policy’s ownership structure, the insured’s life expectancy, and the policy’s maturity date.”¹ I disagree with Phoenix’s contentions and explain the reasons for that disagreement in this declaration. In that connection, as is customary in matters such as this, I have been asked to assume for purposes of my analysis that Phoenix will be found liable for breach of contract as alleged in the complaint.

1. Defendant Phoenix Life Insurance Company’s Memorandum of Law Opposing Plaintiffs’ Motion for Class Certification, February 1, 2013, pp. 14-15.

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5. In conducting my analysis, I have reviewed and considered insurance policies issued by Phoenix to John L. Loeb Jr. and Michael Earl Moss, forms on which policies were issued to others, correspondence between Phoenix and certain of its policyholders, materials related to an investigation of Phoenix conducted by the New York State Insurance Department, and other documents produced by Plaintiffs and Phoenix. I also have reviewed and considered pleadings that were furnished by counsel, including Defendant Phoenix Life Insurance Company's Memorandum of Law Opposing Plaintiffs' Motion for Class Certification and the declarations of Gina Collopy O'Connell, Douglas A. French, and Brian P. Perryman in support thereof. Additionally, I have been provided access to all documents that have been produced in this matter to date by Plaintiffs and Phoenix. My review of these documents is ongoing. To the extent I relied on any documents in formulating my opinion, I have so noted herein.

II. BACKGROUND

6. I understand that this is a class action brought by Plaintiffs individually and on behalf of similarly situated owners of flexible-premium, universal life insurance policies issued by Phoenix that have been subject to cost of insurance ("COI") increases in violation of the terms of the policies. This section provides an overview of my understanding of certain facts and events that are relevant to my analysis of damages in this matter.

7. Phoenix issued a Phoenix Accumulator Universal Life ("PAUL") policy with a face amount of \$10 million to John L. Loeb Jr. on November 1, 2005 ("Loeb Policy").² I understand that Jonathan Berck, a named plaintiff in this matter, serves as Trustee of the John Loeb Insurance Trust, which owns the Loeb Policy.

2. Loeb Policy (JB000509-547 at 509).

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8. Phoenix issued a PAUL policy with a face amount of \$6 million to Michael Earl Moss on October 12, 2007 (“Moss Policy”).³ I understand that Martin Fleisher serves as Trustee of the Michael Moss Irrevocable Life Insurance Trust II, which owns the Moss Policy.

9. Although the form of the Moss Policy differs in certain respects from that of the Loeb Policy, both are flexible-premium, universal life policies, as are all of the policies at issue in this matter.⁴ These policies do not require the payment of fixed monthly premiums; the premiums are flexible, meaning the policy will remain in force as long as the policy value is maintained at a level sufficient to prevent a lapse in the policy.

10. Subject to certain limitations, a PAUL policyholder may pay premiums at any time. Premiums paid, less sales charges (also known as premium expense charges) imposed by Phoenix, are added to the policy value of the policy. Monthly deductions are made from the policy value to cover the COI charge (the amount Phoenix receives each month for providing insurance coverage), monthly fees, and the cost of any additional benefit riders. The policy value earns interest at a rate determined by Phoenix, subject to a guaranteed minimum interest rate disclosed in the policy.⁵

11. A Policyholder may generally elect to surrender his or her policy at any time and receive the policy value of the policy less applicable surrender charges, policy debt, and

3. Moss Policy (MF000392-430 at 393).

4. I understand that the policies at issue in this matter were written on one of two forms: 05PAUL (see Moss Policy at MF000392-430) or U607 NY (see Loeb Policy at JB000509-547).

Letter from Michael Maffei to Kathleen McGah, September 6, 2011 (PLIC008959-961 at 959).

Letter from Gina O’Connell to Dennis Lauzon, October 21, 2011 (PLIC018381-383 at 381).

5. Policy form 05PAUL, pp. 12-13 (PLIC 000634-653 at 645-646).

Policy form U607 NY, pp. 8-9 (JB000509-547 at 524-525).

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unpaid charges. Partial withdrawals of policy value are also allowed, subject to certain charges and limitations.⁶

12. In March 2010 Phoenix began sending letters to some, but not all, PAUL policyholders announcing that their policies would be subject to a COI rate increase (“First COI Rate Increase”) if accumulated policy values were not maintained at a sufficient level. These policyholders were informed that [REDACTED]

[REDACTED]⁷ I understand that certain policyholders with policies subject to the First COI Rate Increase were informed: [REDACTED]

[REDACTED]⁸ Other policyholders were warned: [REDACTED]

[REDACTED]⁹ The policyholders were told that this adjustment was relative to [REDACTED]

[REDACTED] and that [REDACTED]¹⁰ Although the policyholders were not informed who else received the increase, the First COI Rate Increase was directed at a certain subset of policies [REDACTED]

6. Policy form 05PAUL, p. 17 (PLIC 000634-653 at 650).

Policy form U607 NY, pp. 11-12 (JB000509-547 at 527-528).

7. See, for example, letter from Phoenix Customer Care Center dated March 19, 2010 (PLIC 000289) and form letter from Phoenix Customer Care Center (PLIC 000731).

8. Form letter from Phoenix Customer Care Center (PLIC 000731).

9. See, for example, letter from Phoenix Customer Care Center dated March 19, 2010 (PLIC 000289).

10. See, for example, letter from Phoenix Customer Care Center dated March 19, 2010 (PLIC 000289).

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Department of Insurance) who conducted an investigation of the First COI Rate Increase and determined that the First COI Rate Increase was in violation of New York law.¹⁸

15. Unlike policyholders whose policies were subject to the First COI Rate Increase, those whose policies were subject to the Second COI Rate Increase and the Third COI Rate Increase could not avoid or reduce the impact of the COI rate increase by maintaining a higher level of policy value in relation to the face amount of their policy. According to an internal Phoenix [REDACTED]

[REDACTED]¹⁹ Phoenix informed policyholders whose policies were subject to the Third COI Rate Increase that [REDACTED]

[REDACTED]²⁰ A [REDACTED]

[REDACTED]²¹

16. Plaintiffs allege that the First COI Rate Increase and the Second COI Rate Increase are impermissible under the terms of the affected policies, and that Phoenix has materially breached those policies by imposing such COI rate increases.

17. Plaintiffs are seeking to certify two classes of policyholders that owned policies subject to the COI rate increases discussed above. The first class ("First COI Rate Increase Class") consists of:

18. Letter from Michael Maffei to Kathleen A. McGah, Esq., September 6, 2011 (PLIC008959-961).

Form letter for active policies from Phoenix Customer Care Center dated November 23, 2011 (PLIC 018380).

19. [REDACTED] (PLIC 000715-720 at 719).

20. See, for example, form letter for active policies from Phoenix Customer Care Center dated November 23, 2011 (PLIC 018380).

21. [REDACTED] (PLIC 000721-725 at 724).

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All owners of flexible-premium ‘universal life’ insurance policies issued by Phoenix Life Insurance Company that were subjected to the Cost of Insurance rate increase announced by Phoenix on or about April 1, 2010 (excluding defendant Phoenix, its officers and directors, members of their immediate families, and the heirs, successors or assigns of any of the foregoing).²²

The second class (“Second COI Rate Increase Class”) consists of:

All owners of flexible-premium ‘universal life’ insurance policies issued by Phoenix Life Insurance Company that were subjected to the Cost of Insurance rate increase announced by Phoenix on or about November 1, 2011 (excluding defendant Phoenix, its officers and directors, members of their immediate families, and the heirs, successors or assigns of any of the foregoing).²³

III. DAMAGES

18. Based on the nature of Plaintiffs’ allegations, my understanding of the remedies available to Plaintiffs, and my review of the forms of the policies at issue in this matter and other information, I have determined that calculating damages for class members can be accomplished by applying a uniform methodology across policies owned by members of the First COI Rate Increase Class and the Second COI Rate Increase Class. This uniform methodology does not require, as Phoenix contends in its opposition to Plaintiff’s motion for class certification, determination of the “resale value” of any of the policies.

A. Damages Related to COI Overcharges

19. Phoenix’s approach to increasing COI rates with the First COI Rate Increase was to base the COI rate charged to a particular policy on the funding ratio (i.e., the ratio of policy value to face amount) for that policy.²⁴ Under this approach, the extent of the COI

22. Class Action Complaint, November 21, 2012, p. 13.

23. Class Action Complaint, November 21, 2012, p. 14.

24. Letter from Byron Frank to Robert Priest, September 10, 2010, p. 2 (PLIC018095-098 at 096).

██ (PLIC 000925).

21. According to the Loeb Policy, which was subject to the First COI Rate Increase, Phoenix will “make monthly deductions from the Policy Value to cover the cost of insurance, the cost of any additional benefit riders and the monthly charges shown on the

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Schedule Pages [of the policy].”³⁰ Similarly, the Moss Policy, which is subject to the Second COI Rate Increase, contemplates monthly deductions that are “due and will be taken from the Policy Value as of the Policy Date and as of each applicable Monthly Calculation Date.”³¹ The COI charge for a particular month is the charge for the Net Amount at Risk.³² The method used by Phoenix to determine the COI charge is similar across all of the policy forms at issue in this matter; any subtle differences are not relevant for purposes of my analysis because they have no meaningful impact on the calculation of damages.³³ I understand that Plaintiffs have asked Phoenix for information relating to the historical COI charges for each of the affected policies, but to date have not received this information.

22. Other things equal, the policy value of a policy subject to a COI rate increase would be greater but for the COI rate increase. It follows that a policyholder could have paid lower premiums and yet obtained the same policy value but for the COI rate increase. Using historical data concerning the affected policies, the amount of premiums paid over and above the premiums that would have been necessary to provide the same policy value but for the COI rate increase (“excess premiums”) can be calculated on a formulaic basis. The derivation of this formula is set forth in detail at Appendix A. Excess premiums are simply a function of the actual COI rate given the COI rate increase, the COI rate that would have been in effect but for the COI rate increase, the net amount at risk, and the sales charge.

30. Loeb Policy, p. 8 (JB000509-547 at 524).

31. Moss Policy, p. 12 (MF000392-430 at 404).

32. Moss Policy, p. 12 (MF000392-430 at 404).

33. Policy form 05PAUL, p. 12 (PLIC 000634-653 at 645).

Policy form U607 NY, pp. 10-11 (JB000509-547 at 526-527).

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23. Phoenix should possess all of the information necessary to make this calculation for each policy owned by members of the First COI Rate Increase Class and the Second COI Rate Increase Class. With the exception of sales charges and the COI rates that would have been in effect but for the COI rate increases, all of the information necessary for this formula was actually used by Phoenix to calculate monthly COI charges for the affected policies. The sales charge for each policy is readily available from the policy itself.³⁴ The COI rates that would have been in effect but for the COI rate increases can be obtained from schedules of COI rates that were in effect prior to the First COI Rate Increase and the Second COI Rate Increase.

24. I understand that the statutory rate of prejudgment interest in New York is nine percent per year pursuant to N.Y. CPLR § 5004. The total of excess premiums including prejudgment interest can also be determined by applying a straightforward interest formula to the excess premiums for each policy.³⁵ This approach is consistent with N.Y. CPLR § 5001(b), which provides:

Interest shall be computed from the earliest ascertainable date the cause of action existed, except that interest upon damages incurred thereafter shall be computed from the date incurred. Where such damages were incurred at various times, interest shall be computed upon each item from the date it was incurred or upon all of the damages from a single reasonable intermediate date.

Damages for First COI Rate Increase

25. On September 6, 2011, the State of New York Insurance Department directed Phoenix to take certain remedial actions with respect to the First COI Rate Increase. It ordered that [REDACTED]

34. The sales charges for the Loeb Policy and the Moss Policy are both 5 percent of the premiums paid for the relevant time period. See Loeb Policy (JB000509-547 at 511) and Moss Policy (MF000392-430 at 396).

35. See Appendix A for details.

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██████████³⁶ It further decreed that ██████████
 ██████████

██████████³⁷ According to Phoenix, the First
 COI Rate Increase ██████████

██████████³⁸ Damages for a
 particular policy that was subject to the First COI Rate Increase are equal to the excess premiums
 with prejudgment interest less an adjustment for the policy value added back by Phoenix in
 November 2011.³⁹ See Appendix A for further details.

Damages for Second COI Rate Increase

26. Phoenix has not reversed the Second COI Rate Increase. Damages for the
 Second COI Rate Increase can therefore be calculated by summing excess premiums for the
 period from the first month in which the Second COI Rate Increase went into effect for a policy
 through the month of trial and adding prejudgment interest thereto.⁴⁰ See Appendix A for further
 details concerning this formula.

27. Although the specific values of the inputs used in each equation will vary
 among class members, the formulas will remain the same. Damages calculated using this
 methodology can be interpreted as the amount of premiums that were paid over and above the

36. Letter from Michael Maffei to Kathleen A. McGah, Esq., September 6, 2011 (PLIC008959-961 at 961).

37. Letter from Michael Maffei to Kathleen A. McGah, Esq., September 6, 2011 (PLIC008959-961 at 961).

38. ██████████ (PLIC
 000721-725 at 721).

I do not yet have information sufficient to confirm that Phoenix did in fact restore policy values to what they
 would have been had there been no COI rate increase.

39. Policy value added back by Phoenix is available from Exhibit A-1 to the November 15, 2011 Letter to the New
 York State Department of Financial Services as updated on November 30, 2011 (PLIC 000598-601).

40. The month through which damages are calculated may vary for some policies, such as those that lapse before
 trial and those for which a death benefit has been paid.

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premiums that would have been necessary to provide the same policy value but for the breach of contract.

B. Damages Related to Forced Loans

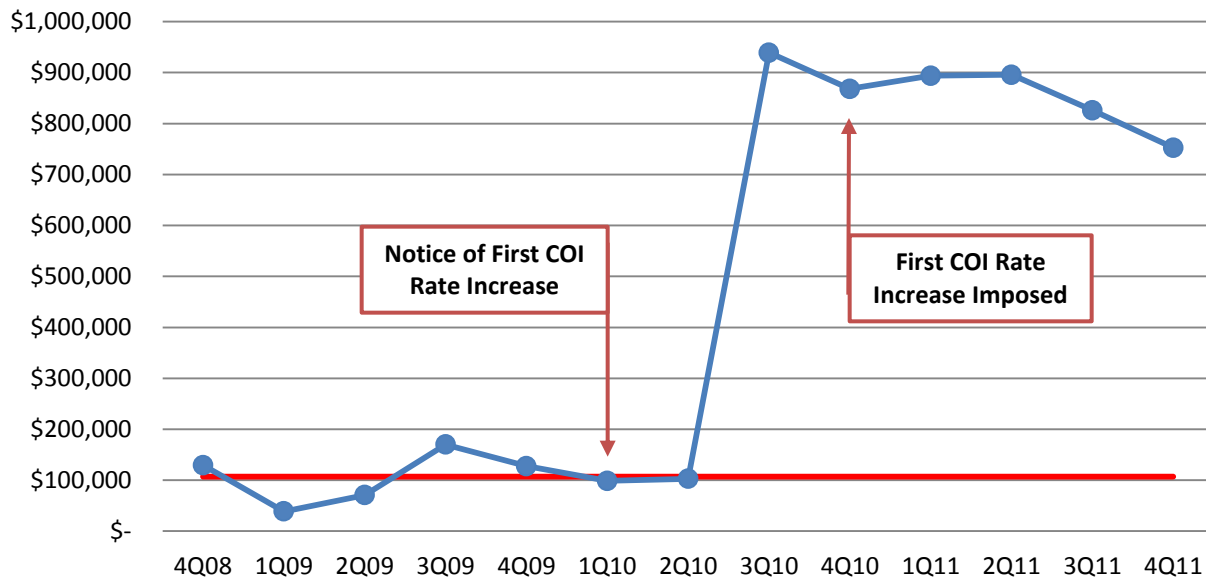
28. As discussed above, certain policyholders with policies subject to the First COI Rate Increase were warned, [REDACTED]

[REDACTED]⁴¹ Policyholders could reduce or eliminate the impact of the First COI Rate Increase by maintaining higher levels of policy value in relation to the face amount of their policies. I understand, for example, that the John Loeb Insurance Trust (“Loeb Trust”) paid premiums in excess of \$800,000 to avoid the impact of the First COI Rate Increase to which it was subjected. Although the First COI Rate Increase did not result in COI overcharges for the Loeb Policy, it would be unreasonable to conclude that the Loeb Trust was not harmed by the First COI Rate Increase. The same is true for other policyholders that responded to Phoenix’s warning by increasing their policy values and maintaining them at levels sufficient to avoid the impact of the First COI Rate Increase to which they were subjected. In effect, these policyholders made forced loans to Phoenix to avoid the impact of the First COI Rate Increase to which they were subjected.

29. As shown in the following chart, the policy value for the Loeb policy averaged approximately \$107,000 during the several quarters leading up to the announcement of the First COI Rate Increase. During the year following the imposition of the First COI Rate Increase, the policy value for the Loeb policy averaged more than \$800,000.

41. See, for example, letter from Phoenix Customer Care Center dated March 19, 2010 (PLIC 000289).

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Historical Value of the Loeb Policy

30. The outstanding balance of the forced loan for the Loeb Trust and similarly situated members of the First COI Rate Increase Class as of a particular date and for a particular policy can be calculated as the difference between premiums that were actually paid into the policy through that date and premiums that would have been paid into the policy through that date but for the First COI Rate Increase.

31. Information concerning actual premiums paid can be obtained from Phoenix. The premiums that would have been paid but for the First COI Rate increase can be estimated as the premiums that are necessary to maintain the policy value at the greater of (a) the level that existed just prior to the time that notice of the First COI Rate Increase was provided or (b) the minimum level necessary to prevent a lapse in the policy.

32. Policyholders that made forced loans to Phoenix should receive prejudgment interest on the balances of the forced loans for the amount of time that Phoenix had possession of the funds. Prejudgment interest on the forced loan for a particular policy can be

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calculated using an interest formula that takes into account the balance of the forced loan over time.⁴² The derivation of this formula is set forth in detail at Appendix B.

C. Damages Related to Policy Lapses

33. As a matter of economics, it is reasonable to conclude that a policyholder who keeps his or her policy in force does so because the expected present value of the policy is greater than zero. Generally speaking, an increase in the COI rate has the effect of reducing the present value of the affected policy because expenses rise without any corresponding increase in benefit to the policyholder. If the COI rate increase is large enough to reduce the expected net present value of the policy below zero, then it is reasonable to expect the policyholder to allow the policy to lapse.

34. Phoenix anticipated that its decision to increase COI rates in 2010 would affect lapse rates: [REDACTED]

[REDACTED]

[REDACTED]⁴³ [REDACTED]

[REDACTED]⁴⁴ Phoenix also expected the Second COI Rate Increase to result in shock lapses. The following table and chart show Phoenix's lapse rate assumptions for its "original pricing" as well as its "new anticipated experience" given the rate increase.⁴⁵

42. Given that the First COI Rate Increase was reversed in November 2011, it is no longer necessary for policyholders to maintain a policy value that is greater than the policy value they would have maintained but for the First COI Rate Increase in order to avoid the COI rate increase. As a result, the outstanding balance of the forced loan for a particular policy should eventually fall to zero.

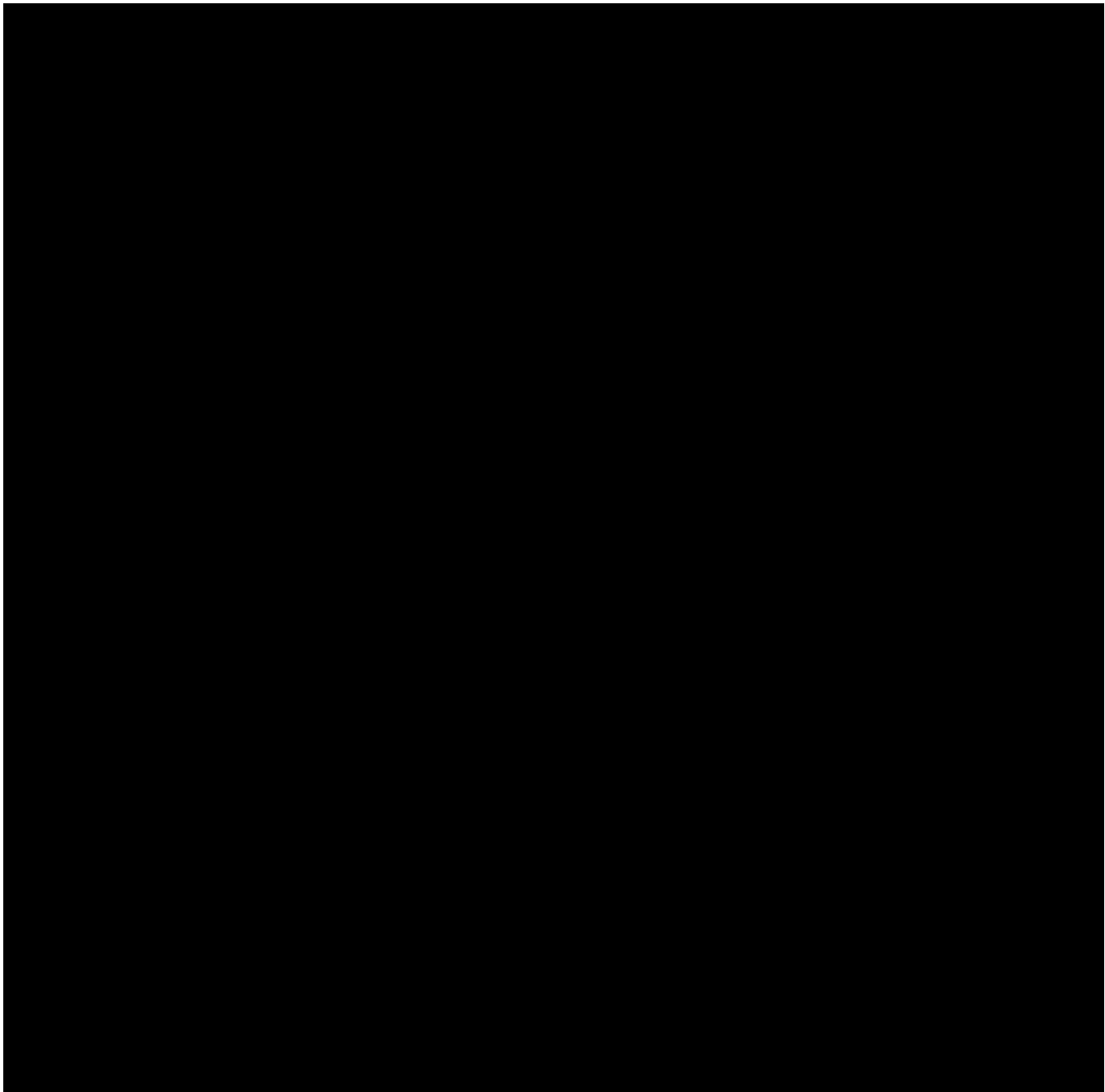
43. [REDACTED] (PLIC0536821).

44. See, for example, [REDACTED] (PLIC018514-518 at 514).

45. Letter from Gina O'Connell to Dennis Lauzon of the New York Insurance Department, August 24, 2011, Exhibits C and D (PLIC014160-166 at 164-165).

[REDACTED]
[REDACTED] September 11, 2006 (PLIC011944-953 at 944).

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35. Documents produced by Phoenix indicate that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] suggesting that the vast majority of lapses that occurred after the First COI Rate Increase were induced by the rate increase.⁴⁶ I have not yet received data concerning the lapse rate for policies subject to the Second COI Rate Increase.

36. I understand that policyholders that allowed their policies to lapse as a result of the First COI Rate Increase or Second COI Rate Increase are entitled to recover the premiums that they paid into the policies. Damages related to lapsed policies for the First COI Rate Increase Class can be estimated on a class-wide basis by first tabulating the total premiums paid on policies that lapsed between the time that the First COI Rate Increase was announced and the time that it was reversed. The portion of these premiums that were paid on policies that would not have lapsed but for the First COI Rate Increase can then be estimated using actual and but-for lapse rates for policies subject to the First COI Rate Increase. Specifically, class-wide damages can be determined by applying the estimated percentage of lapses caused by the First COI Rate Increase to the total premiums paid on lapsed policies. As discussed above, documents produced by Phoenix demonstrate that it has estimated lapse rates but for the First COI Rate Increase. These lapse rates can be used along with information concerning the actual lapse rates to estimate the percentage of lapses caused by the First COI Rate Increase. Information concerning the total premiums paid on lapsed policies and the number of actual lapses is also

46. [REDACTED] (PLIC0536821) [REDACTED]
[REDACTED]

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maintained by Phoenix. This same methodology can be used to estimate damages for the Second COI Rate Increase Class.

37. I understand that allowing policyholders to reinstate their policies by paying the minimum premiums that would have been necessary to keep the policies in force under the COI rates that existed before the First COI Rate Increase or Second COI Rate Increase (net of any surrender charges imposed by Phoenix) is another remedy available to the First COI Rate Increase Class and the Second COI Rate Increase Class. The minimum premiums that would have been necessary to keep the policies in force can be determined using the COI rates that existed before the COI rate increases.

IV. CONCLUSIONS

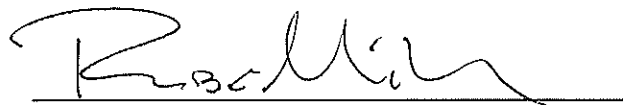
38. Given the nature of the claims at issue in this matter, a uniform methodology can be applied to determine damages caused by the First COI Rate Increase and the Second COI Rate Increase. Although the values of the inputs used for the formulas discussed above will vary across class members, the overall approach is uniform and can be readily applied on a class-wide basis. All of the data necessary to carry out these calculations should be in the possession of Phoenix.

39. It is my understanding that discovery is ongoing. Accordingly, the results set forth herein are preliminary and subject to change in the event that additional relevant information becomes available.

40. I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

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Executed on February 15, 2013, at Los Angeles, California.



Robert Mills

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APPENDIX A**FORMULAS USED TO CALCULATE DAMAGES FOR COI OVERCHARGES**

The policy value of a policy as of a particular Monthly Calculation Date can be expressed as

$$v_m = (v_{m-1} + p_m(1 - c) - s_m - COI_m)(1 + i_m)^{\frac{1}{12}}, \quad (1)$$

where: v_m is the value of the policy as of the Monthly Calculation Date for month m ;

v_{m-1} is the value of the policy as of the previous Monthly Calculation Date;

p_m is the premium paid in month m ;

c is the sales charge rate;

s_m is the service charge and other charges for month m (e.g., charges for riders);

COI_m is the cost of insurance charge for month m ; and

i_m is the interest rate in effect for month m .⁴⁷

The COI charge is equal to the product of the COI rate and the Net Amount at Risk plus any other applicable charges. This is expressed as

$$COI_m = r_m \cdot n_m + x_m, \quad (2)$$

where: COI_m is the COI charge for month m ;

r_m is the COI rate in effect for month m ;

n_m is the Net Amount at Risk for month m ; and

x_m is the sum of other applicable charges, if any, for month m .⁴⁸

47. This equation was derived from correspondence between Phoenix and the New York State Insurance Department. See [REDACTED] and [REDACTED] (PLIC 000894-927 at 925 and 926).

48. See, for example, Loeb Policy, p. 10 (JB000509-547 at 526).

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The Net Amount at Risk is essentially the amount by which the death benefit exceeds the policy value.⁴⁹ This can be expressed as

$$n_m = f_m - (v_{m-1} + p_m(1 - c) - s_m), \quad (3)$$

where f_m is the adjusted death benefit for month m .⁵⁰ Substituting equation (3) into equation (2) yields:

$$COI_m = r_m[f_m - (v_{m-1} + p_m(1 - c) - s_m)] + x_m. \quad (4)$$

Equation (5) is obtained by substituting equation (4) into equation (1):

$$v_m = [(v_{m-1} + p_m(1 - c) - s_m)(1 + r_m) - r_m \cdot f_m - x_m](1 + i_m)^{\frac{1}{12}}. \quad (5)$$

To distinguish the values of variables given the COI rate increase from the values of those variables but for the COI rate increase, superscripts are added to certain variables in equation (5).

The superscript “a” is used to denote values given the COI rate increase imposed by Phoenix:

$$v_m^a = [(v_{m-1}^a + p_m^a(1 - c) - s_m)(1 + r_m^a) - r_m^a \cdot f_m - x_m](1 + i_m)^{\frac{1}{12}}. \quad (6)$$

49. Formally, the Net Amount at Risk for the Moss Policy is the amount determined by subtracting (a) from the greater of (b) or (c) where:

- (a) Is the greater of 0 and the Policy Value at the end of the immediately preceding business day less all charges due on the Monthly Calculation Date;
- (b) (i) is the Total Face Amount divided by the applicable Monthly Factor shown in the footnote in Section 2 for Death Benefit Option A; or (ii) is the Total Face Amount divided by the applicable Monthly Factor shown in the footnote in Section 2 plus the greater of 0 and the Policy Value for Death Benefit Option B; and
- (c) Is the amount defined in (a) multiplied by the applicable Minimum Death Benefit Percentage shown in Section 2. See Moss Policy, p. 12 (MF000392-430 at 404).

The Net Amount at Risk for the Loeb Policy is equal to “the Death Benefit at the beginning of the Policy Month, divided by the Monthly Factor shown on the Schedule Pages” less “the Policy Value at the beginning of the Policy Month, after the Monthly Service Charge and, when applicable, one-twelfth of the Issue Charge, and prior to subtracting the Cost of Insurance for that month.” See Loeb Policy, p. 10 (JB000509-547 at 526).

50. See, for example, [REDACTED] (PLIC 000894-927 at 925 and 926).

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The superscript “bf” is used to denote values but for the COI rate increase:

$$v_m^{\text{bf}} = [(v_{m-1}^{\text{bf}} + p_m^{\text{bf}}(1 - c) - s_m)(1 + r_m^{\text{bf}}) - r_m^{\text{bf}} \cdot f_m - x_m](1 + i_m)^{\frac{1}{12}}. \quad (7)$$

Equations (6) and (7) can be used to determine the amount of premiums paid over and above the premiums that would have been necessary to provide the same policy value but for the COI rate increase (“excess premiums”). Excess premiums, denoted by Δ , can be expressed as

$$\Delta = p^a - p^{\text{bf}}, \quad (8)$$

where p^a is the total of the premiums actually paid and p^{bf} is the total of the premiums that would have been necessary to obtain the same policy value but for the COI rate increase.⁵¹

Substituting a derivation of equation (8) into equation (7) yields:

$$v_m^{\text{bf}} = [(v_{m-1}^{\text{bf}} + (p_m^a - \Delta_m)(1 - c) - s_m)(1 + r_m^{\text{bf}}) - r_m^{\text{bf}} \cdot f_m - x_m](1 + i_m)^{\frac{1}{12}}. \quad (9)$$

Equation (10) is derived by solving equations (6) and (9) for the Δ_m that produces a but-for policy value, v_m^{bf} , that is equal to the actual policy value, v_m^a :

$$\Delta_m = \frac{[f_m - (v_{m-1}^a + p_m^a(1 - c) - s_m)](r_m^a - r_m^{\text{bf}})}{(1 - c)(1 + r_m^{\text{bf}})}. \quad (10)$$

This can be simplified by substituting equation (3) into equation (10):

$$\Delta_m = \frac{(r_m^a - r_m^{\text{bf}})}{(1 - c)(1 + r_m^{\text{bf}})} \cdot n_m^a. \quad (11)$$

51. The excess contribution for a particular month, m , is given by: $\Delta_m = p_m^a - p_m^{\text{bf}}$.

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Excess premiums are determined by summing Δ_m across each month in which the COI rate increase was in effect:

$$\Delta = \sum_{m=1}^M \frac{(r_m^a - r_m^{bf})}{(1-c)(1+r_m^{bf})} \cdot n_m^a. \quad (12)$$

As shown in equation (12), excess premiums are a function of the actual COI rate given the COI rate increase, the COI rate that would have been in effect but for the COI rate increase, the net amount at risk, and the sales charge.

The total of excess premiums including prejudgment interest, Δ^I , is given by

$$\Delta^I = \sum_{m=1}^M \frac{(r_m^a - r_m^{bf})}{(1-c)(1+r_m^{bf})} \cdot n_m^a \left(1 + \frac{0.09}{12}\right)^{(j-m+1)}, \quad (13)$$

where j is the month in which judgment is entered.

Damages for First COI Rate Increase

As shown in equation (14), damages for a particular policy that was subject to the First COI Rate Increase are equal to the excess premiums with prejudgment interest less an adjustment for the policy value added back by Phoenix in November 2011.⁵²

$$\text{Damages (First COI Rate Increase)} = \Delta^I - \frac{a}{(1-c)} \cdot \left(1 + \frac{0.09}{12}\right)^t, \quad (14)$$

where a is the amount of policy value added back by Phoenix in November 2011 and t is the number of months from November 2011 through the month in which judgment is entered.

52. Policy value added back by Phoenix is available from Exhibit A-1 to the November 15, 2011 Letter to the New York State Department of Financial Services as updated on November 30, 2011 (PLIC 000598-601).

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Damages for Second COI Rate Increase

Phoenix has not reversed the Second COI Rate Increase. Damages for the Second COI Rate Increase can therefore be calculated by summing excess premiums for the period from the first month in which the Second COI Rate Increase went into effect for a policy ($m = 1$) through the month of trial T .⁵³

$$\text{Damages (Second COI Rate Increase)} = \sum_{m=1}^T \frac{(r_m^a - r_m^{\text{bf}})}{(1 - c)(1 + r_m^{\text{bf}})} \cdot n_m^a \cdot \left(1 + \frac{0.09}{12}\right)^{(j-m+1)}. \quad (15)$$

53. The month through which damages are calculated may vary for some policies, such as those that lapse before trial and those for which a death benefit has been paid.

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APPENDIX B**FORMULA USED TO CALCULATE DAMAGES FOR FORCED LOANS**

The outstanding balance of the forced loan for the Loeb Trust and similarly situated members of the First COI Rate Increase Class as of a particular date and for a particular policy can be calculated as the difference between premiums that were actually paid into the policy through that date and premiums that would have been paid into the policy through that date but for the First COI Rate Increase. This can be expressed as

$$B_M = \sum_{m=1}^M (P_m^a - P_m^{\text{bf}}), \quad (16)$$

where: B_M is the outstanding balance of the forced loan as of month M ;

P_m^a is the actual premium paid during month m ; and

P_m^{bf} is the premium for month m but for the First COI Rate Increase.

Information concerning actual premiums paid can be obtained from Phoenix. The premiums that would have been paid but for the First COI Rate increase can be estimated as the premiums that are necessary to maintain the policy value at the greater of (a) the level that existed just prior to the time that notice of the First COI Rate Increase was provided or (b) the minimum level necessary to prevent a lapse in the policy. This involves solving the policy value equation (equation (5) from Appendix A) for the premium, p_m , that is required to maintain the policy value, v_m , at this level.

Prejudgment interest on the forced loan for a particular policy can be calculated as

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$$\text{Prejudgment Interest} = \sum_{m=1}^Z (P_m^a - P_m^{\text{bf}}) \left[\left(1 + \frac{0.09}{12} \right)^{(j-m+1)} - 1 \right], \quad (17)$$

where Z is the month in which the balance of the forced loan falls to zero and j is the month in which judgment is entered.⁵⁴

54. Given that the First COI Rate Increase was reversed in November 2011, it is no longer necessary for policyholders to maintain a policy value that is greater than the policy value they would have maintained but for the First COI Rate Increase in order to avoid the COI rate increase. As a result, the outstanding balance of the forced loan for a particular policy should eventually fall to zero.

EXHIBIT 1

MICRONOMICS
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ROBERT MILLS
Director

Robert Mills has extensive experience quantifying economic damages in connection with commercial litigation. He has served as an expert witness or consultant in a wide range of matters, including patent, trademark and copyright infringement, theft of trade secrets, breach of contract, interference, conversion, fraud, predatory pricing, attempted monopolization, and labor disputes. His experience spans many industries, including software, semiconductors, telecommunications, manufacturing, apparel, insurance, energy, entertainment, waste, real estate, sporting goods, health care, pharmaceuticals, and medical devices, among others. Mr. Mills has testified as an economic expert in Federal District Court, state courts in multiple jurisdictions, and at arbitration. He has appeared at mediation venues and before the U.S. Department of Justice.

Mr. Mills also engages in economic research and consulting activities outside the context of litigation. He has assessed the anticipated competitive effects of mergers and joint ventures on behalf of government regulatory agencies and merging parties; developed forecasts and strategic recommendations for government agencies and clients involved with real estate development; and assisted clients with the valuation of intangible assets and entire businesses.

FIELDS OF CONCENTRATION

Intellectual Property; Industrial Organization; Statistics; Economic Valuation and Damages Calculations

EMPLOYMENT

Micronomics, 1998 – present (affiliated with InteCap, Inc., 2000 – 2003)
Los Angeles, California

Hobson Johnson & Associates
Associate, 1996 – 1998
Portland, Oregon

University of California, Santa Barbara
Teaching Assistant, Department of Economics, 1994 – 1995
Santa Barbara, California

SELECTED CONSULTING EXPERIENCE

Economic Damages/Lost Profits

- Calculated lost profits on behalf of plaintiffs and defendants in connection with contract disputes, patent infringement, fraud, interference, antitrust, and other causes of action. Addressed lost sales, incremental cost, market definition, capacity, foreseeability, mitigation, and alter ego issues.
- Quantified relevant profits under disgorgement theories of damages.
- Determined magnitude of alleged underpayment of overtime to a class of exempt employees on behalf of a national retail chain.
- Quantified lost earnings and benefits in connection with wrongful termination and personal injury matters.
- Analyzed irreparable harm issues in connection with motions for temporary restraining orders and preliminary injunctions.

Intellectual Property

- Determined reasonable royalties and calculated lost profits in connection with patent infringement matters on behalf of patent owners and alleged infringers. Addressed royalty base, reasonable royalty rates, commercial success, non-infringing substitutes, availability, comparability, capacity constraints, convoyed sales, price erosion damages, and the entire market value rule.
- Calculated damages on behalf of clients involved with theft of trade secrets, trademark infringement, and copyright infringement litigation.
- Reviewed numerous license and cross-license agreements covering technologies related to telecommunications, semiconductors, software, sporting goods, medical devices, security, construction materials, motion control, and consumer products, among other industries.
- Assisted with the negotiation of patent license agreements.

Valuation

- Valued controlling and minority interests in closely held businesses. Addressed issues of liquidity, marketability, comparability, and the cost of capital.
- Valued stock options, earn-outs, and escrowed contingencies in connection with acquisitions and intellectual property transfers.

- Analyzed commercial and industrial real estate appraisals and made strategic recommendations to government agencies contemplating real estate transactions.

Antitrust

- Assessed the anticipated competitive effects of mergers, acquisitions, and joint ventures on behalf of government regulatory agencies as well as merging parties.
- Estimated anticipated post-merger prices using merger simulation techniques on behalf of a manufacturer of branded consumer products. Presented findings to U.S. Department of Justice.
- Conducted studies of market definition, attempted monopolization, below-cost pricing, price discrimination, and economic damages on behalf of plaintiffs and defendants involved with antitrust litigation.
- Evaluated price fixing allegations in the semiconductor industry.
- Analyzed relevant markets and economic damages in connection with a patent misuse claim.
- Conducted econometric analyses of pricing and output in a matter involving price fixing allegations.

Real Estate

- Assisted government agencies with eminent domain compensation issues.
- Prepared numerous feasibility studies and financial projections for income producing properties, including commercial, industrial, residential, and resort projects.
- Prepared forecasts of vacancy, absorption, rental rates, and new construction for financial institutions, government agencies, and real estate developers.
- Conducted study of student housing options on behalf of a university. Recommended adjustments to university housing rental rates and determined target rates for planned development.
- Recommended development strategies to numerous real estate developers. Addressed product size, mix, location, and other qualitative factors.
- Calculated damages caused by interference with development of a master planned community.

Cost-Benefit Analysis

- Estimated the economic, fiscal, and social impact of instituting system development fees for new real estate development.
- Assisted a multi-jurisdiction planning commission in assessing economic, fiscal and social impacts of anticipated demilitarization.
- Advised the developer of a major destination resort of the economic and fiscal impacts of the proposed project.
- Advised client of financial and other costs and benefits of relocating headquarters and manufacturing operations.
- Assessed the impact of a large retail establishment on small retailers located near its stores.
- Recommended development strategies to a port authority based on analysis of the costs and benefits of its options.

Econometrics

- Developed econometric models used to assess the competitive impacts of proposed mergers.
- Estimated own- and cross-price elasticity of demand for differentiated products in the baking industry.
- Prepared and evaluated revenue and earnings forecasts on behalf of plaintiffs and defendants involved with commercial litigation.
- Evaluated econometric models provided to a government regulatory agency by parties contemplating a merger.
- Developed econometric models used to measure the effects of economic events on the value of firms.
- Assisted clients with survey design, sampling, and hypothesis testing.

Risk Analysis

- Assisted law firms, corporate legal departments, and mediators with assessments of litigation risk and the expected value of litigation.
- Analyzed risk associated with litigation versus settlement in insurance claim disputes on behalf of insurers and insured parties.

RECENT TESTIMONY AND OTHER REPRESENTATIVE EXPERIENCE

1. *Ecologic Solutions, LLC v. Bio-Tec Environmental, LLC, et al.*
Arbitration before American Arbitration Association
Case No. 76-117-Y-00325-10
Breach of Contract, Misappropriation of Trade Secrets, Fraud
Report, Deposition
2. *Gustavo Naranjo, et al. v. Spectrum Security Services, Inc.*
Superior Court of the State of California
Case No. BC 372146
Violations of California Labor Code
Report, Deposition
3. *REC Software USA, Inc. v. Bamboo Solutions Corporation, et al.*
United States District Court, Western District of Washington
Case No. 2:11-cv-554-JLR
Patent Infringement
Report, Deposition
4. *Versata Software, Inc., et al. v. Internet Brands, Inc., et al.*
United States District Court, Eastern District of Texas
Civil Action No. 2:08-cv-313-WCB
Patent Infringement, Breach of Contract, Interference
Reports, Deposition, Trial
5. *Samuel D. Adams v. Bio-Tec Environmental, LLC, et al.*
Arbitration before American Arbitration Association
Case No. 76-174-00048-11 LGB
Breach of Contract, Misappropriation of Trade Secrets
Reports, Trial
6. *SimpleAir, Inc. v. AWS Convergence Technologies, Inc., et al.*
United States District Court, Eastern District of Texas
Case No. 2:09-cv-289 (CE)
Patent Infringement
Reports, Deposition
7. *Shane Malek, et al. v. GR Hair Solutions, LLC, et al.*
Arbitration before JAMS
Reference No. 1220041531
Breach of Contract
Report, Trial

8. *LML Patent Corp. v. JPMorgan Chase & Co., et al.*
United States District Court, Eastern District of Texas
Case No. 2:08-cv-448 DF
Patent Infringement
Report, Depositions
9. *SP Syntax LLC, et al. v. James Ching Hua Li, et al.*
Superior Court of the State of California
No. BC 402910
Negligent Misrepresentation
Deposition, Trial
10. *Neurorepair, Inc. v. The Nath Law Group, et al.*
United States District Court, Southern District of California
Case No. 09 CV 986 JAH NLS
Breach of Contract, Breach of Fiduciary Duty, Negligent Misrepresentation
Report
11. *Network-1 Security Solutions, Inc. v. Cisco Systems, Inc., et al.*
United States District Court, Eastern District of Texas
Case No. 6:08cv030-LED
Patent Infringement
Report, Depositions, Trial
12. *Aurora Loan Services, LLC, et al. v. Ameriquest Mortgage Company, et al.*
Superior Court of California, County of Orange
Case No. 07CC01338
Breach of Contract
Report, Deposition
13. *Robert Jacobsen v. Matthew Katzer, et al.*
United States District Court, Northern District of California
Case No. C06-1905-JSW
Copyright Infringement
Report
14. *Performance Pricing, Inc. v. Google, Inc., et al.*
United States District Court, Eastern District of Texas
Case No. 2:07-cv-432 (LED)
Patent Infringement
Reports, Deposition

15. *Hoyt A. Fleming v. Tom Coverstone*
United States District Court, Southern District of California
Case No. 08cv355-WQH (NLS)
Breach of Contract, Patent Valuation
Report
16. *Monolithic Power Systems, Inc. v. O2 Micro International Limited*
United States District Court, Northern District of California
Case No. C 08-4567 CW
Patent Infringement
Report
17. *Tokai Corp., et al. v. Easton Enterprises, Inc., et al.*
United States District Court, Central District of California
Case No. EDCV 07-0883 VAP (FMOx)
Patent Infringement
Report, Deposition
18. *Trent West v. Jewelry Innovations, Inc., et al.*
United States District Court, Northern District of California
Case No. C 07-1812 JF (HRL)
Patent Infringement
Report, Deposition
19. *The Quantum World Corporation v. Atmel Corporation, et al.*
United States District Court, Eastern District of Texas
Case No. 2:07-CV-24 (TJW)
Patent Infringement
Report, Deposition
20. *Abstrax, Inc. v. Sun Microsystems, Inc., et al.*
United States District Court, Eastern District of Texas
Case No. 2:07-CV-333-(DF)(CE) and 2:07-CV-221-(DF)(CE)
Patent Infringement
Reports, Depositions
21. *Thermapure, Inc. v. Water Out Drying Corp., et al.*
United States District Court, Eastern District of Texas
Case No. 2:06-CV-453 (CE)
Patent Infringement
Report, Deposition, Trial

22. *Robert Bush v. Allianz Life Insurance Company of North America, et al.*
United States District Court, Central District of California
Case No. SACV07-913 JVS (MLGx)
Wrongful Termination
Report, Deposition
23. *Bid For Position, LLC v. AOL, LLC, et al.*
United States District Court, Eastern District of Virginia
Case No. 2:07-CV-582-JBF/TEM
Patent Infringement
Reports, Deposition
24. *Enovsys, LLC v. Nextel Communications, Inc., et al.*
United States District Court, Central District of California
Case No. CV 06-5306-RSWL
Patent Infringement
Reports, Deposition, Trial
25. *Bayer Clothing Group, Inc. v. Sears, Roebuck & Co.*
United States District Court, Northern District of Illinois
Case No. 07-CV-2395
Breach of Contract
Report, Deposition
26. *The Milton H. Greene Archives, Inc. v. Marilyn Monroe LLC, et al.*
United States District Court, Central District of California
Case No. CV 05-02200-MM (Ex)
Copyright Infringement, Right of Publicity, Interference
Report
27. *O2 Micro International, Ltd. v. Rohm Co., Ltd.*
United States District Court, Eastern District of Texas
Case No. 2:05-CV-211 TJW
Patent Infringement, Antitrust Counterclaims
Reports, Depositions, Trial
28. *Conway Ho v. Capcom Co., Ltd., et al.*
Superior Court of California, County of Los Angeles
Case No. BC 358289
Breach of License Agreement, Interference
Report, Deposition

29. *SRI International v. Millennium Inorganic Chemicals, Inc., et al.*
American Arbitration Association
Case No. 74 133 Y 00737 06 BRSH
Breach of Contract, Fraud
Report
30. *Ann Deren-Lewis v. Genentech, Inc., et al.*
Superior Court of California, County of Los Angeles
Case No. BC 326343
Wrongful Termination
Deposition
31. *One Industries, LLC v. Jim O'Neal Distributing, Inc.*
U.S. District Court, Central District of California
No. 06 CV 1133 JAH (AJB)
Trademark and Trade Dress Infringement
Report, Deposition
32. *Eric Joseph Aubry Sr. v. 7-Eleven, Inc., et al.*
U.S. District Court, Central District of California
No. CV-06-1076 GHK (JTLx)
Interference
Report
33. *Tokai Corp., et al. v. Newell Rubbermaid, Inc., et al.*
U.S. District Court, Central District of California
No. CV-06-1064 PA (PJWX)
Patent Infringement
Report, Deposition
34. *Minka Lighting, Inc. v. Hunter Fan Company d/b/a Casablanca Fan Co.*
U.S. District Court, Central District of California
No. CV 05-6557 RGK (JTLx)
Patent Infringement
Report

EDUCATION

M.A., Economics, University of California, Santa Barbara, 1995
M.S., Applied Economics, Portland State University, 1994
B.S., Economics and History, Portland State University, 1992

PAPERS/SPEECHES/PRESENTATIONS

- “Practical Elements of Finance,” Practising Law Institute, New York, New York, June 13-14, 2011.
- “Regression Analysis Applications in Litigation,” (with Dubravka Tosic), chapter in *Pocket MBA: Finance for Lawyers*, Practising Law Institute, March 2011.
- “Industry Norms and Reasonable Royalty Rate Determination,” (with Roy Weinstein and Michelle Porter), *les Nouvelles*, March 2008.
- “Market Concentration and Unilateral Effects,” UCLA First Annual Institute on US and EU Antitrust Aspects of Mergers and Acquisitions, Ritz-Carlton Hotel, Marina Del Ray, California, February 28, 2004.
- “Hot Topics in Intellectual Property Valuation,” California Mandatory Continuing Legal Education Program, Los Angeles, November 2000.
- “Valuing Intellectual Property,” California Mandatory Continuing Legal Education Program, Los Angeles, July 2000.
- “Unilateral Effects in Merger Analysis: The Simulation Approach,” for the Los Angeles County Bar Association, February 1999.

AFFILIATIONS

American Economic Association
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